CONTENTS

**Part 1 (January 2000)**

**S. T. Collinson, K. P. Sibuga, A. J. P. Tarimo and S. N. Azam-Ali:** Influence of sowing date on the growth and yield of bambara groundnut land-races in Tanzania 1

**M. J. Jones:** Comparison of conservation tillage systems in barley-based cropping systems in northern Syria 15

**D. Zao and D. M. Oosterhuis:** Cotton responses to shade at different growth stages: growth, lint yield and fibre quality 27

**G. Suresh and J. V. Rao:** The influence of nitrogen-fixing trees and fertilizer nitrogen levels on the growth, yield and nitrogen uptake of cowpea on a rainfed Alfisol 41

**J. B. Shiere, Kiran Singh and A. J. De Boer:** Farming systems research applied in a project on feeding of crop residues in India 51

**J. O. Akinola, A. Larbi, G. O. Farinu and A. A. Odunsi:** Seed treatment methods and duration effects on germination of wild sunflower 63

**T. P. Tuong, P. P. Pablico, M. Yamauchi, R. Confesor and K. Moody:** Increasing water productivity and weed suppression of wet seeded rice: effect of water management and rice genotypes 71

**P. M. De Rezende and M. A. P. Ramalho:** Forage production of intercropped maize and soyabean cultivars 91

**D. Bissessur, R. A. E. Tilney-Bassett, L. C. Y. Lim Shin Chong, R. Domaingue and M. H. R. Julien:** Family x environment and genotype x environment interactions for sugarcane across two contrasting marginal environments in Mauritius 101

**K. S. Sandhu, V. K. Arora, Ramesh Chand, B. S. Sandhu and K. L. Khera:** Optimizing time distribution of water supply and fertilizer nitrogen rates in relation to targeted wheat yields 115

**Book Reviews** 127

**Notes for Contributors** 133

**Part 2 (April 2000)**

**M. J. Jones:** Anticipatory long-term research for sustainable productivity 137

**J. Riley:** Design perspectives in long-term experimentation 151

**M. J. Jones and M. Singh:** Time trends in crop yields in long-term experiments 165

**S. Christiansen, M. Bounejmate, H. Sawmy-Edo, B. Mawlawi, F. Shomo, P. S. Cocks and T. L. Nordblom:** Tah village project in Syria: another unsuccessful attempt to introduce ley-farming in the Mediterranean Basin 181

**S. Christiansen, M. Bounejmate, F. Bahhady, E. Thomson, B. Mawlawi and M. Singh:** On-farm trials with forage legume–barley compared with fallow–barley rotations and continuous barley in north-west Syria 195

**T. J. Rego and V. Nageswara Rao:** Long-term effects of grain legumes on rainy-season sorghum productivity in a semi-arid tropical Vertisol 205

**M. Pala, H. C. Harris, J. Ryan, R. Makboul and S. Dozom:** Tillage systems and stubble management in a Mediterranean-type environment in relation to crop yield and soil moisture 223

**G. V. Subbarao, C. Renard, W. A. Payne and A. Bationo:** Long-term effects of tillage, phosporous fertilization and crop rotation on pearl millet–cowpea productivity in the West African Sahel 243

**R. Aboul Enien, A. Abdel Shafi, M. Abdel Monem, A. Kamel, M. B. Solh, M. Bedier and H. Khalifa:** A new research paradigm for sustainability research in Egypt 265

**Raj K. Gupta and I. P. Abrol:** Salinity build-up and changes in the rice–wheat system of the Indo-Gangetic Plains 273

**Book Reviews** 285

**Part 3 (July 2000)**

**N. R. Patel., A. N. Mehta and A. N. Mehta:** Radiation absorption, growth and yield of pigeonpea cultivars as influenced by sowing date 291

**H. M. Ishag:** Phenotypic and yield responses of irrigated groundnut cultivars in a hot environment 303

**E. J. Ekefan, S. A. Simons, A. O. Nwankiti and J. C. Peters:** Semi-selective medium for isolation of *Colletotrichum gloeosporioides* from soil 313

**M. A. El-Sharkawy and L. F. Cadavid:** Genetic variation within cassava germplasm in response to potassium 323

**P. S. Ojiambo, P. O. Ayiecho, R. D. Narla and R. K. Mibey:** Tolerance level of *Alternaria sesami* and the effect of seed infection on yield of sesame in Kenya 335

**G. V. Dyke and S. C. Pearce:** Aberrant data in field experiments 343

**M. Peters, S. A. Tarawali and R. Schulte-Kraft:** Relative palatability and seasonal agronomic performance of selected pasture legumes for species mixtures in dry-subhumid West Africa 353

**H. A. A. Tambal, W. Erskine, R. Baalbaki and H. Zaiter:** Relationship of flower and pod numbers per inflorescence with seed yield in lentil 369

**P. Q. Craufurd:** Effect of plant density on the yield of sprghum–cowpea and Pearl millet–cowpea intercrops in Northern Nigeria 379

**A. D. Noble and A. P. Hurney:** Long-term effects of lime additions on sugar-cane yield and soil chemical properties in North Queensland 397

**Book Reviews** 415

**Notes for Contributors** 419

**Part 4 (October 2000)**

**P. Mapfumo, S. Mpepereki and P. Mafongoya:** Pigeonpea rhizobia prevalence and crop response to inoculation in Zimbabwean smallholder-managed soils 423

**K. Agyemang, I. Okike, H. J. Makun and S. O. Magaji:** Trade-offs between forage yields and feed quality of *Lablab purpureus*, and milk yields in relation to planting and harvesting schedules 435

**I. Demir and H. A. van der Venter:** The effect of heat treatment of water-melon seed on germination, hypocotyl emergence and abscisic acid content 453

**N. R. Devkota and B. Rerkasem:** Effects of cutting on the nitrogen economy and dry matter yield of lablab grown under monoculture and intercropped with maize in northern Thailand 459

**D. R. Butler, K. D. R. Wadia, R. K. Reddy, N. D. Das, B. Johnson, Meena Kumari, K. Krishna Murty, B. Sreenivas and N. N. Srivastava:** A weather-based scheme to advise on limited chemical control of groundnut leaf spot diseases in India 469

**O. A. Castelá-Ortega, R. H. Fawcett, C. M. Arriaga-Jordan and A. J. Smith:** Evaluation of the CERES–Maize model in simulating *campesino* farmer yields in the highlands of central Mexico 479

**L. A. S. Dias, M. M. Santos, A. O. S. Santos, C. M. V. C. Almeida, C. D. Cruz and P. C. S. Carneiro:** Effect of planting density on yield and incidence of witches' broom disease in a young plantation of hybrid cacao trees 501

**I. C. Onwueme and M. Johnston:** Influence of shade on stomatal density, leaf size and other leaf characteristics in the major tropical root crops, tannia, sweet potato, yam, cassava and taro 509

**Book Reviews** 517

**Notes for Contributors** 529

**Index of Authors** 533

**Index of Subjects** 539